

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (cancelled)
2. (cancelled)
3. (withdrawn) A nonwoven fabric as set forth in claim 1, wherein the biodegradable polymer is selected from the group consisting of polybutylene succinate, polyethylene succinate, polybutylene adipate, polybutylene sebacate, polycaprolactone and polypropiolactone, and copolymers essentially comprising a base unit of any of these polymers.
4. (cancelled)
5. (cancelled)
6. (cancelled)
7. (cancelled)
8. (withdrawn) A method of producing a formable nonwoven fabric composed of filaments of a biodegradable polymer comprising a thermoplastic aliphatic polyester as its principal component, the method comprising the steps of:

melting the polymer and extruding the resulting melt through a spinneret and forming said melt into filaments;

drafting the extruded filaments at a drafting speed of 1,000 to 2,500/min by means of a suction device disposed below the spinneret, while quenching the filaments with quench air blow;

spreading open each other and accumulating the drafted filaments on a movable collector surface thereby to form a web; and

treating the web for formation of the nonwoven fabric.

9. (withdrawn) A nonwoven fabric production method as set forth in claim 8, wherein the biodegradable polymer is selected from the group consisting of poly-D-lactic acid, poly-L-lactic acid, copolymers of D-lactic acid and L-lactic acid, copolymers of D-lactic acid and hydroxycarboxylic acid and copolymers of L-lactic acid and hydroxycarboxylic acid, copolymer of D-lactic acid, L-lactic acid and hydroxycarboxylic acid, and blends of any of these polymers.

10. (withdrawn) A nonwoven fabric production method as set forth in claim 8, wherein the biodegradable polymer is selected from the group consisting of polybutylene succinate, polyethylene succinate, polybutylene adipate, polybutylene sebacate, polycaprolactone and polypropiolactone, and copolymers essentially comprising a base unit of any of these polymers.

11. (withdrawn) A nonwoven fabric production method as set forth in claim 8, wherein the polymer contains a nucleating agent.

12. (cancelled)

13. (cancelled)

14. (cancelled)

15. (cancelled)

16. (cancelled)

17. (new) A thermoformable nonwoven fabric composed of filaments of a biodegradable polymer, wherein

the biodegradable polymer is a copolymer of D-lactic acid and L-lactic acid in which the copolymerization molar ratio of either one of D-lactic acid in which the copolymerization molar ratio of either one of D-lactic acid and L-lactic acid is 90% or more and that of the other is 10% or less,

the nonwoven fabric is a spun bonded nonwoven fabric in which the filaments are bonded to each other only in spot fusion-bonded areas partially formed in the nonwoven fabric,

the filaments have a polymer supercool index of 0.3 to 0.6,

the filaments have a birefringence of 3×10^{-3} to 15×10^{-3} ,

the filaments have a polymer crystalline size of 15 to 20 angstroms as measured axially thereof, and

the nonwoven fabric has a boiling water shrinkage percentage of 10 to 40%.

18. (new) The nonwoven fabric as set forth in claim 17 wherein the polymer contains a nucleating agent.

19. (new) A product thermoformed from the nonwoven fabric according to claim 17.

20. (new) The product as set forth in claim 19, wherein the nonwoven fabric of the thermoformed product has a boiling water shrinkage percentage of 3.9 to 6.2%.

21. (new) A thermoformable nonwoven fabric composed of filaments of a biodegradable polymer, wherein

the biodegradable polymer is a copolymer of D-lactic acid and L-lactic acid in which the copolymerization molar ration of either one of D-lactic acid and L-lactic acid is 90% or more and that of the other is 10% or less,

the nonwoven fabric is a spun bonded nonwoven fabric and has temporary fusion-bonded spots preliminarily formed in parts of a web of the filaments in which the filaments are partially de-bonded through a three-dimensional entanglement process, and non-fusion areas in which the filaments are three-dimensionally entangled with each other for integration of the filaments,

the filaments have a polymer supercool index of 0.3 to 0.6,

the filaments have a birefringence of 3×10^{-3} to 15×10^{-3} ,

the filaments have a polymer crystalline size of 15 to 20 angstroms as measured axially thereof, and

the nonwoven fabric has a boiling water shrinkage percentage of 10 to 40%.

22. (new) The nonwoven fabric as set forth in claim 21, wherein the polymer contains a nucleating agent.

23. (new) A product thermoformed from the nonwoven fabric according to claim 21.

24. (new) The product as set forth in claim 23, wherein the nonwoven fabric of the thermoformed product has a boiling water shrinkage percentage of 3.9 to 6.2%.

25. (new) A thermoformable nonwoven fabric composed of filaments of a biodegradable polymer, wherein

the biodegradable polymer is a copolymer of D-lactic acid and L-lactic acid in which the copolymerization molar ratio of either one of D-lactic acid and L-lactic acid is 90% or more and that of the other is 10% or less.

the nonwoven fabric is a spun bonded nonwoven fabric, and the filaments are integrated by completely de-bonding temporary fusion-bonded spots once formed in parts of a web of the filaments and three-dimensionally entangling the filaments through a three-dimensional entanglement process,

the filaments have a polymer supercool index of 0.3 to 0.6,

the filaments have a birefringence of 3×10^{-3} to 15×10^{-3} ,

the filaments have a polymer crystalline size of 15 to 20 angstroms as measured axially thereof, and

the nonwoven fabric has a boiling water shrinkage percentage of 10 to 40%.

26. (new) The nonwoven fabric as set forth in claim 25, wherein the polymer contains a nucleating agent.

27. (new) A product thermoformed from the nonwoven fabric according to claim 25.

28. (new) The product as set forth in claim 27, wherein the nonwoven fabric of the thermoformed product has a boiling water shrinkage percentage of 3.9 to 6.2%.